OU 5 DRAFT REMEDIAL DESIGN WORK PLAN

05/23/96

USEPA DOE-FN 10 COMMENTS



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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BEPLY TO THE ATTENTION OF:

SRF-5J

Mr. Johnny W. Reising United States Department of Energy Feed Materials Production Center P.O. Box 398705 Cincinnati, Ohio 45239-8705

RE: OU 5 Draft Remedial Design Work Plan

Dear Mr. Reising:

The United States Environmental Protection Agency (U.S. EPA) has completed its review of the United States Department of Energy's (U.S. DOE) draft Operable Unit (OU) 5 Remedial Design (RD) work plan.

The RD work plan proposes remedial actions which are technically feasible and meet the intent of the Record of Decision. However, there are several areas which require more detailed information and further clarification regarding the content of the submittals.

Therefore, U.S. EPA disapproves the RD work plan pending incorporation of adequate responses to the attached comments. U.S. DOE must submit a revised work plan and responses to comments within thirty (30) days receipt of this letter.

Please contact me at (312) 886-0992 if you have any questions regarding this matter.

Sincerely,

James A. Saric

Remedial Project Manager Federal Facilities Section SFD Remedial Response Branch #2

Enclosure

cc: Tom Schneider, OEPA-SWDO
Jack Baublitz, U.S. DOE-HDQ
John Bradburne, FERMCO
Charles Little, FERMCO
Terry Hagen, FERMCO
Michael Yates, FERMCO

(Tarke(RT)) partial action respon Doe-0715-96-P-079 bcc w/attachment:
 Sharon McLellan, PRC

bcc w/o attachment:
 Roger Grimes, ORC
 Cheryl Allen, OPA

TECHNICAL REVIEW OF THE DRAFT REMEDIAL DESIGN WORK PLAN FOR REMEDIAL ACTIONS AT OPERABLE UNIT 5 FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

General Comments

Commenting Organization: U.S. EPA Commentor: Saric Section #: 1.3 Page #: Not applicable (NA) Line #: NA

Original General Comment #:1

Comment: Section 1.3 discusses the integration of the Operable Unit 5 (OU5) remedial design (RD) with related projects for other OUs; however, Section 1.3 does not clearly discuss the roles of the site-wide excavation plan(SEP), due in October 1996, the integrated remedial design packages (IRDP), and the integrated environmental management plan (IEMP) in the site-wide integrated approach to the RD/remedial action (RA) process. The text should be revised to clarify this matter.

Commenting Organization: U.S. EPA Commentor: Saric Section #: 2 Page #: NA Line #: NA

Original General Comment #: 2

Comment: Section 2.0 provides an abbreviated discussion of the OU5 selected remedy and references Section 9.0 of the OU5 record of decision (ROD) for further information. Because of the general nature of this discussion, the scope of work for the work plan is not clear. The work plan should be a stand-alone document that serves as a framework for implementing the requirements of the ROD. Section 2.0 of the work plan should be revised to include a more specific discussion of the OU5 selected remedy and to clearly define the scope of the RD.

Commenting Organization: U.S. EPA Commentor: Saric Section #:2 Page #: NA Line #: NA

Original General Comment #: 3

Comment: The U.S. Department of Energy (DOE) has proposed to excavate contaminated portions of the perched aquifer along with contaminated soils. A map of the possible soil excavation footprint is provided as part of the work plan. The U.S. Environmental Protection Agency (U.S. EPA) notes that portions of the contaminated soils and aquifer may not be excavated because of the presence of structures used for the ongoing site-wide cleanup. For example, the advanced wastewater treatment plant (AWWT), which is located within a contaminated zone, will be used to treat groundwater for up to 27 years (according to the OU5 ROD). Thus, the work plan should clearly state how contaminated perched water and soils will be addressed in areas where excavation is not feasible during the 10-year cleanup scenario.

Commenting Organization: U.S. EPA Commentor: Saric Section #:2.1.4 Page #: NA Line #: NA

Original General Comment #:4

Comment: This section discusses the Fernald Environmental Management Project (FEMP) storm water collection system. The text states that FEMP will continue to operate this system until soil final remediation levels (FRL) are attained on a site-wide basis or until jointly deemed necessary by DOE and U.S. EPA. The final disposition of this system is not discussed in the text; therefore, it is unclear whether this system will be abandoned in place or whether system demolition followed by site restoration will be performed. The text should be revised to clarify this matter.

Commenting Organization: U.S. EPA Commentor: Saric Section #: 2.2 Page #: NA Line #: NA

Original General Comment #: 5

Comment: This section provides an abbreviated discussion of the RA objectives and FRLs stated in the OU5 ROD. As noted in Original General Comment 2, the work plan should be a standalone document, and thus is should include the cleanup levels that the RD must meet. At a minimum, the FRLs should be provided in an attachment to the work plan. In addition, the waste acceptance criteria (WAC) for the on-site disposal facility (OSDF) should be stated in the work plan or be included in an attachment.

Commenting Organization: U.S. EPA Commentor: Saric Section #: 3.3 Page #: NA Line #: NA Original General Comment #:6

Comment: Several deliverables discussed in the text are not included in the proposed list of deliverables for groundwater (Table 3.1). The deliverables discussed in text are the (1) operations and maintenance (O&M) plan,

(2) baseline remedial strategy report, (3) IEMP, (4) RA work

plan for aquifer restoration, and (5) site close-out report. Table 3.1 should be revised to include a complete list of deliverables.

Commenting Organization: U.S. EPA Commentor: Saric Section #:4 Page #: NA Line #: NA Original General Comment #: 7

Comment: A brief discussion of the soil certification process is presented in the text, and a reference to the SEP is made. Soil certification appears to be the focus of the SEP; however, certification of cleanup for other media, including perched water, sediment, and groundwater in the Miami Aquifer, must also be completed. The work plan should state how the certification process will be completed for each

target medium, and reference should be made to the deliverables that will discuss these issues.

Commenting Organization: U.S. EPA Commentor: Saric Section #:4 Page #: NA Line #: NA

Original General Comment #: 8

Comment: The ROD calls for several studies that are not directly addressed in the work plan. These studies, termed "measures to minimize impacts," involve (1) impacts on on-property vegetation and wildlife, (2) woodland replacement and mitigation, (3) possible relocation of the Sloan's crayfish in Paddy's Run, (4) wetland mitigation, (5) archaeological and historical surveys, and (6) an institutional control plan. DOE may intend to discuss the results of these studies in one or more of the scheduled deliverables; however, plans for these studies as well as the associated deliverables should be clearly presented in the work plan.

Commenting Organization: U.S. EPA Commentor: Saric Section #:5 Page #: NA Line #: NA

Original General Comment #: 9

Comment: Section 5 of the work plan is overly general in its discussion of program management. The section does not provide specific information on (1) the roles, responsibilities, and lines of authority of project team members; (2) the interrelation of other programs with OU5 RD tasks; (3) the estimated timetable for tasks and deliverables; or (4) how the identified project organizations will meet specific task objectives and project schedules. This section should be modified to: (1) define the roles, responsibilities, and lines of authority of project team members; (2) define relationships with other, related programs; (3) identify time-critical tasks and their relationships to other project components; and (4) provide greater detail on the startup date, duration, and estimated completion date of each project task.

Specific Comments

Commenting Organization: U.S. EPA Commentor: Saric Section #: 1.4 Page #:1-6 Line #: 24 through 25

Original Specific Comment #: 1

Comment: The text states that the design scope has been segmented into two principal components: (1) soil remediation and (2) Great Miami Aquifer restoration. However, Section 9.1 of the ROD identifies 10 key components, some of which are presented as subtasks of the two components in the work plan. These subtasks are important and should be addressed individually. DOE should clearly identify in the work plan how the 10 key components of the ROD will be addressed. It

may be appropriate to include a third principal component that encompasses the ROD components not currently addressed, such as site restoration and long-term maintenance.

Commenting Organization: U.S. EPA Commentor: Saric Section #: 2.1.1 Page #: 2-2 Line #: 32

Original Specific Comment #: 2

Comment: The text states that "contaminant specific waste acceptance criteria have been established." These criteria should be referenced in a specific document or included in an attachment.

Commenting Organization: U.S. EPA Commentor: Saric Figure #: 2-1 Page #: 2-3 Line #: NA

Original Specific Comment #: 3

Comment: Figure 2-1 shows the excavation footprint as extending beneath the AWWT. This area also has perched water contamination. As the AWWT will be used to treat perched water and storm water for up to 27 years after excavation, it is unclear how excavation will be completed in this area. This issue should be resolved.

Commenting Organization: U.S. EPA Commentor: Saric Section #: 2.1.2 Page #: 2-4 Line #: 14-15

Original Specific Comment #: 4

Comment: The proposed method for excavation and perched water treatment is to excavate soils and then allow liquids to drain. This method may be difficult to implement in some areas because of the poor stability of saturated sands or silt. If dewatering technologies are to be used before excavation, they should be briefly discussed in the work plan. Such technologies may also be important to remediating contaminated perched water below the AWWT (see Original Specific Comment 3).

Commenting Organization: U.S. EPA Commentor: Saric Figure #: 2-2 Page #: 2-5 Line #: NA

Original Specific Comment #: 5

Comment: Figure 2-2 identifies an area of off-site groundwater contamination near Paddy's Run, but the text does not clearly state whether this area will be remediated. DOE should provide clarification on this issue.

Commenting Organization: U.S. EPA Commentor: Saric Section #: 2.1.4 Page #: 2-6 Line #: 21 through 30 Original Specific Comment #: 6

Comment: The work plan discusses management of wastewater and storm water generated from cleanup operations. However, the work plan does not discuss management of run on or direct precipitation during excavation. Measures to prevent run on

and contact with precipitation and contaminated areas should be discussed in the text.

Commenting Organization: U.S. EPA Commentor: Saric Section #: 2.1.9 Page #: 2-12 Line #: 19 through 22

Specific Comment #: 7

Comment: This section discusses community involvement. The work plan states that the community involvement program will continue throughout remedial activities. However, DOE should state in the text whether this program will continue through the monitoring phase.

Commenting Organization: U.S. EPA Commentor: Saric Section #: 2.2 Page #: 2-13 Line #: 30 through 35

Original Specific Comment #: 8

Comment: The work plan cites remediation levels and WAC in the ROD. This information should be included in an attachment to the work plan.

Commenting Organization: U.S. EPA Commentor: Saric Section #: 3.1 Page #: 3-1 and 3-2 Line #: 3 through 33 Original Specific Comment #:9

Comment: The text states that "it was acknowledged that the remedial design activity would address EPA's desire to restore the off-property portion of the plume as the FEMP's highest groundwater priority, even though that portion of the plume is not necessarily the rate-limiting area controlling overall remediation time." The meaning of this statement is unclear. The work plan should clearly state whether the RD will address off-site contamination on a priority basis.

Commenting Organization: U.S. EPA Commentor: Saric Section #: 3.2 Page #:3-3 Line #:1 through 7 Original Specific Comment #: 10

Comment: The work plan states that schedules for developing RD documents are uncertain because of uncertainty regarding the remediation system performance. As a result, only a partial list of deliverables and deliverable due dates is provided in Section 3.2. The work plan should identify as clearly as possible all deliverables and their likely delivery time frames. Critical path analysis should be used if necessary to identify the documents that are most important to the overall schedule. The results of this analysis should be incorporated into the schedule and the text.

Commenting Organization: U.S. EPA Commentor: Saric Section #: 3.3.1 Page #:3-5 Line #:12

Original Specific Comment #: 11

Comment: The text mentions a report relating to groundwater modeling that will be submitted to U.S. EPA. The report should be clearly identified as a deliverable and its due date should be given in text and in Table 3-1.

Commenting Organization: U.S. EPA Commentor: Saric Section #: 3.3.2 Page #:3-5 Line #:28

Original Specific Comment #: 12

Comment: The text identifies the O&M plan for groundwater as a deliverable. This deliverable is not specified in Table 3-1. Also, it is unclear whether the O&M plan will address environmental monitoring issues other than those associated with groundwater. The O&M plan for groundwater and its due date should be included in Table 3-1, and the text should be clarified to state whether environmental monitoring issues other than groundwater will be addressed.

Commenting Organization: U.S. EPA Commentor: Saric Section #: 3.3.3 Page #:3-6 Line #:3

Original Specific Comment #: 13

Comment: The text identifies nine existing wells in the south plume module. A different number of existing wells is shown in Figures 2-3 and 3-1. This discrepancy should be resolved.

Commenting Organization: U.S. EPA Commentor: Saric Section #: 3.3.3 Page #:3-6 Line #:15

Original Specific Comment #:14

Comment: The text identifies a deliverable, the baseline remedial strategy report, that does not appear in Table 3-1. The deliverable and its projected due date should be included in Table 3-1.

Commenting Organization: U.S. EPA Commentor: Saric Section #: 3.3.4 Page #:3-6 Line #:23

Original Specific Comment #: 15

Comment: The text mentions a possible deliverable, the "first-phase, five well demonstration." If this is a deliverable, it should be included along with its projected due date in Table 3-1.

Commenting Organization: U.S. EPA Commentor: Saric Section #: 3.3.9 Page #:3-8 Line #:12

Original Specific Comment #: 16

Comment: The text identifies the IEMP as a deliverable. This document should be included in Table 3-1 along with its projected due date. Also, the relationship of the IEMP to the O&M plan should be discussed in the text.

Commenting Organization: U.S. EPA Commentor: Saric Section #: 3.3.11 Page #:3-9 Line #:16

Original Specific Comment #: 17

Comment: The text identifies the site closeout report as a deliverable. It may be difficult to project the due date of this deliverable, but it should be included in Table 3-1 along with a projected due date.

Commenting Organization: U.S. EPA Commentor: Saric Section #:3.4.2 Page #:3-10 Line #:15

Original Specific Comment #: 18

Comment: The text discusses the status of ongoing uranium desorption evaluation. The text should state whether a deliverable will be associated with this evaluation.

Commenting Organization: U.S. EPA Commentor: Saric Section #: 3.4.3 Page #:3-10 Line #:21 Original Specific Comment #: 19

Comment: The text identifies ongoing testing related to the short-term injection test. The text should state when the results of this ongoing testing will be presented to U.S. EPA.

Commenting Organization: U.S. EPA Commentor: Saric Section #: 3.4.4 Page #:3-11 Lines #:1 and 2 Original Specific Comment #: 20

Comment: The text identifies a sampling program to address data gaps discovered during the feasibility study (FS). The sampling program should be described as a deliverable in text and included in Table 3-1 along with a projected due date.

Commenting Organization: U.S. EPA Commentor: Saric Table #: 3-1 Page #:3-12 Line #: NA Original Specific Comment #: 21

Comment: Table 3-1 should be revised to include all possible deliverables. If specific due dates cannot be estimated, then due dates associated with project milestones should be provided. For instance, the FS data gap report will be submitted 90 days after the completion of FS data gap sampling activities (scheduled for summer 1996).

Commenting Organization: U.S. EPA Commentor: Saric Section #: 4.1 Page #:4-1 Line #: NA Original Specific Comment #: 22

Comment: The text identifies several factors that will drive the sequence of soil excavation, including certification that soil meets cleanup objectives. The text should clarify whether the certification process will include verification that perched water has been remediated in a given area.

Commenting Organization: U.S. EPA Commentor: Saric Section #: 4.2.2 Page #:4-7 Line #: 20-21

Original Specific Comment #: 23

Comment: The bulleted item "Sampling and Analysis Methods and Requirements" should include other required sampling elements, such as sampling methods, representative sampling, and sampling rationale.

Commenting Organization: U.S. EPA Commentor: Saric Section #: 4.2.2 Page #:4-8 Line #: NA

Original Specific Comment #: 24

Comment: Another bulleted item should be added for perched water remediation and verification because perched water will be remediated as part of the excavation program.

Commenting Organization: U.S. EPA Commentor: Saric Section #: 5.1 Page #:5-1 Line #: NA Original Specific Comment #: 25

Comment: Five project organizations are introduced in text as the "fully integrated project organizations...established to focus on successfully [planning] and [executing] remedial activities for discrete segments of the total project scope." It is not clear at this point or elsewhere in this section how these project organizations will assume responsibility for the tasks required under the work plan. The organizations' responsibilities are structured according to other, ongoing programs. This may be appropriate, but a framework should be provided that clearly details the responsibilities of each organization in executing the RD tasks. Furthermore, the relationship of the current program organization to the RD tasks should be described in the work plan.